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The Leonard Coates Nursery Co. Inc.

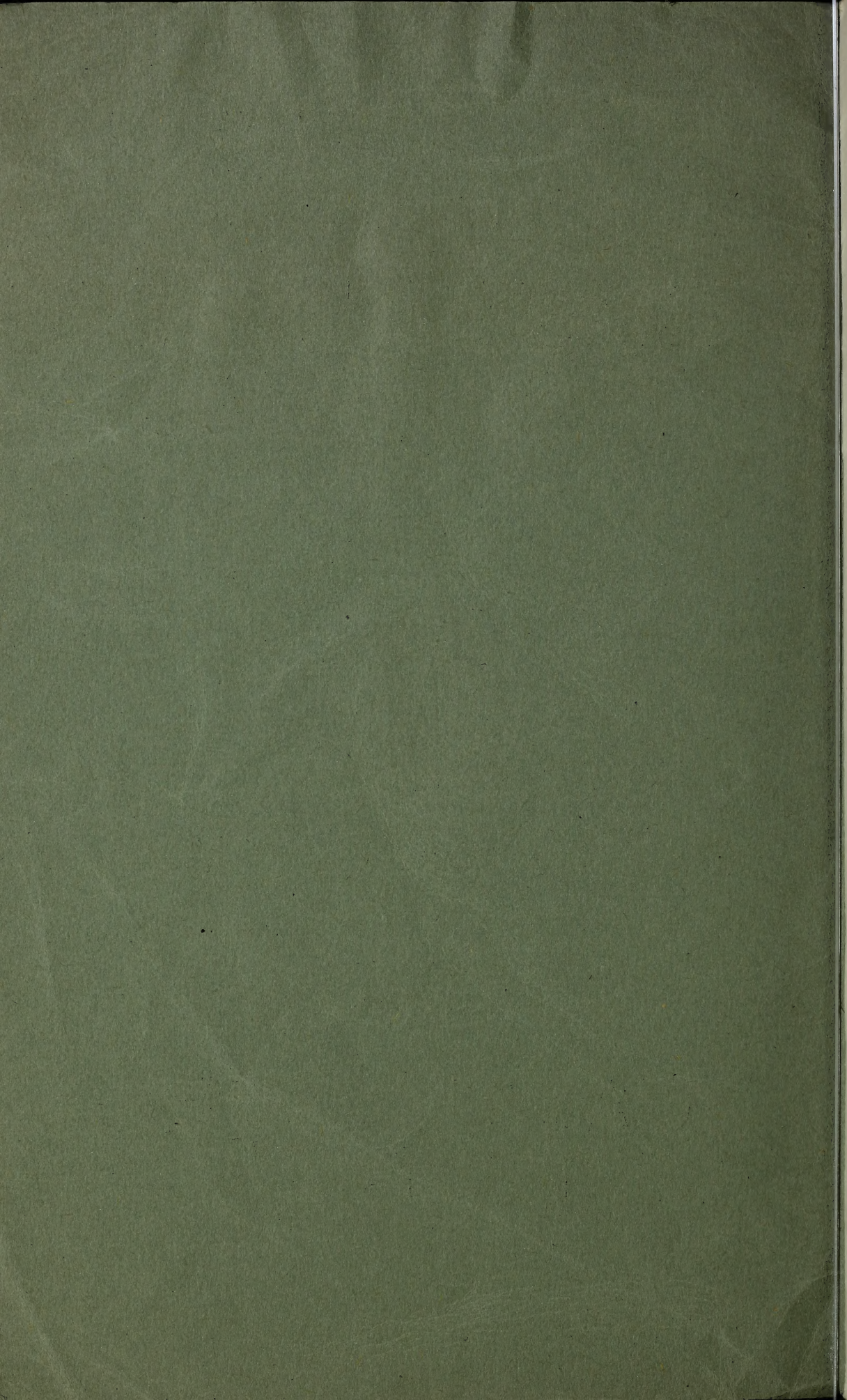
ESTABLISHED 1878 ★ INCORPORATED 1905

HOME OFFICE
MORGANHILL,
CALIFORNIA



CATALOGUE

1911-1912



Brief Descriptive Catalogue

of

Nursery Stock

Grown and For Sale

by

LEONARD COATES

NURSERY COMPANY

INCORPORATED

MORGANHILL

Santa Clara County

California

Just a Word

about our fruit tree stock. It is grown on new land, without irrigation. It is propagated from the best, selected, bearing trees, some varieties being entitled to the name "Pedigreed."

All of the varieties listed are growing on our home place in an experimental orchard, and many are already bearing fruit. Prospective planters should make a note of this, and visit our orchards during the summer, when the various fruits may be seen and sampled. To give one instance: We can pick ripe peaches every day from June to November, which will show what the "family orchard" may be when advice from experienced men is sought. Our "experience" in California extends over a period of more than thirty-five years.

PEDIGREED STOCK.

The idea originated with us, and it means simply that whenever any individual tree is found that has made a record as to quality, bearing, and vigor, we propagate from that particular tree exclusively. Our Blenheim Apricots, and some others, are so propagated.

After over twenty years of observation, we have been able to segregate certain types of the French Prune, and to propagate only from these trees which possess the qualities wanted—size and early maturing. The so-called "French Prune" was introduced into California from France in its varied and various types, having been raised originally as seedlings, and all such possessing the necessary sweetness being retained. Thus we have all types from what the grower calls "stick-tights" to the immense "Imperials." The late Felix Gillet, a Frenchman, introduced several fixed or distinct types, and we are propagating from them as well as from two others quite distinct.

It is in this line of work that we claim to be pioneers, and growers as well as nurserymen are now beginning to see the importance of propagating from only a selected strain when the same is known to be "fixed." There will be a steady improvement if buds or grafts are taken only from the best bearing trees, passing by any tree which shows a lack of vigor or a poor crop or inferior fruit; but when we use the term "pedigreed," we mean that some individual tree, or even a branch, has for years been known to possess distinct superior qualities over any others, or, as in the case of the French Prune, qualities so distinct, both in size of fruit and time of ripening, that it becomes pomologically almost a distinct variety.

We could quote from numerous authorities in support of the correctness of the position we take, but confine ourselves to a few:

Prof. L. H. Bailey, of Cornell:

"We know that no two trees in any orchard are alike, either in the amount of fruit which they bear or in their vigor and habit of growth. Some are uniformly productive, and some are uniformly unproductive. We know, too, that scions or buds tend to reproduce the characters of the tree from which they are taken. Why should a fruit grower take scions from a tree which he knows to be unprofitable? The indiscriminate cutting of scions is too clumsy and inexact a practice for these days, and we are trying to introduce scientific methods into our farming."

Prof. S. W. Fletcher, of Michigan Agricultural College:

"The pedigree idea rests upon the most important principle of plant breeding—that of selection. If all other plants are being improved by selection, and the improvements are handed down to their offspring, why not the fruit grower's plants? Just as the florist gets better carnations, chrysanthemums, roses, by merely taking cuttings from the best plants."

Prof. W. S. Thornber, of Washington:

"My plan would be for a nursery to go ahead and have pedigreed trees of their own

selections, which are known to produce good crops of highly colored fruit, marketable sizes, good quality, right straight along."

Our own orchards consist of the best trees obtainable in point of vigor and fruitfulness; any that prove to be unprofitable or imperfect are grafted or budded from some other tree. Trees propagated therefrom have a right to the term "selected," and any that are propagated from some particular individual tree which possesses all good qualities in a marked and special degree, we call "pedigreed."

Darwin's theory is that by continued selection a variety might by degrees be so improved that it would become a new and distinct variety. Mendel's theory is that certain variations occur suddenly, sometimes as a bud variant or sport, but in accord with a certain fixed law. However that may be, every intelligent farmer knows the truth of the principle, and most of them are beginning to practice it.

NEW VARIETIES.

We introduce new varieties of merit every year and are testing all such in our own experimental orchards. We shall take pleasure in adding some of these to the orders of our regular customers.

PLEASE NOTE.

LOCATION—Our freight and express office, as well as postoffice, is Morganhill. Our home place, experimental grounds, orchards, ornamental and *Eucalyptus* Nursery are here located. Our fruit tree nurseries are on river bottom land near Gilroy. Morganhill is on the main S. P. line for the South, centrally located, with close connections for all points North and East.

SHIPPING—Give plain directions as to route and whether by freight or express. We recommend express for all except large shipments.

RESPONSIBILITY—We cannot be held liable for any damage that may result from delays in transportation or through the inability of horticultural commissioners to make prompt inspection.

ORDERS—We aim to fill orders in rotation, as received, and will always endeavor to use the utmost promptness. If customers would order early and leave it to our discretion when to ship, annoying delays would be avoided. Even if the land is not ready for planting, it is much better to have the trees ready, bundles opened and roots well covered in a shallow trench.

SUBSTITUTIONS—Always state, in a mixed order, if any substitutions may be made or not. If "no substitution" is written on order, such instruction will be carefully heeded.

COMPLAINTS—All claims for shortage or other mistakes must be made on receipt of goods.

QUARANTINE LAWS—It is to our interest to take every precaution to ship nothing but stock that is clean and healthy; we could not afford to do otherwise. The law has often worked a hardship upon planter and nurseryman, owing to inadequate measures for inspection of stock at point of destination, and consequent delays in delivery. Our trees are all shipped under the County Commissioner's certificate.

GUARANTEE OF GENUINENESS—While every care is taken to sell stock true to name and description, mistakes may sometimes occur, in which case, on proper proof being presented, we shall be ready to refund the amount paid or will replace such trees or other stock.

It is mutually understood and agreed to between purchaser and ourselves that such guarantee of genuineness shall in no case make us liable for any sum greater than the original amount paid for any stock that may prove to be untrue.

PACKING—This is done in the best manner, and charges made simply to cover cost of material used. No charge for cartage to railroad.

TERMS—Cash, or satisfactory reference.

Fruit and Nut Department

ALMONDS ON ALMOND ROOT.

Drake. Very prolific and a regular, heavy bearer.

I. X. L. Upright; vigorous grower; nuts large; hull easily.

Jordan. The renowned Spanish almond; nuts very long.

Lewelling. An immense bearer; tree of drooping habit; nuts large and good; hulls easily.

Medina. New; from Texas; not yet fruited with us.

Ne Plus Ultra. Sturdy, rather upright habit; nuts long, very thin shell, bears in clusters.

Nonpareil. Spreading habit; paper shell; generally bears well, though blooming early.

Peerless. Tree very strong grower of spreading habit; nuts large, much resembling the I. X. L., but a heavier bearer.

Ream's Favorite. Large tree, and very large nut; blooms late; great bearer.

Texas Prolific. Very vigorous, upright grower; bears enormously; nuts fair size and of good quality.

APPLES.

Arkansas Black. Large, dark red; good quality; late keeper.

Banana. Very large, yellow with pink cheek; winter.

Baldwin. Large, bright red; crisp, juicy; keeps till Christmas.

Duchess of Oldenburg. Fair size, yellow, streaked with red; late summer.

Delicious. Large, nearly covered with red; best quality; keeps well.

Early Harvest. Medium, pale yellow; very early.

Fameuse, or Snow. Medium, deep crimson; flesh snowy white; fall.

Grimes' Golden. Medium to large, golden yellow; flesh crisp, juicy, very good; winter.

Gano. Large, red; improved Ben Davis; winter.

Gravenstein. Very large, striped, roundish, first quality; summer and early fall.

Hubbardston. Large, yellow, striped red; very good; early winter.

Hyslop Crab. Large, bright red.

Jonathan. Medium, red and yellow; excellent quality; winter.

King David. Introduced by Stark Bros. Co., of Missouri. Beautiful late red apple; the handsomest apple shown at Watsonville.

King of Tompkins Co. Very large, red; best quality; winter.

Northern Spy. Large, striped red, deep crimson on sunny side; keeps late.

Opalescent. Large and very handsome, light color, shading to deep crimson; winter.

Red Astrachan. Large, red, with heavy bloom; very early.

Red Pearmain. Medium, roundish, mostly covered with deep red; winter.

Red Siberian Crab. Small, yellow, almost covered with red.

Red June. Medium, bright red; flesh crisp; early.

Rhode Island Greening. Large, greenish-yellow; winter.

Strawberry. Medium; nearly covered with deep red; midsummer.

Skinner's Seedling. Large; best quality; striped red; fall.

Smith's Cider. Large, handsome, red and yellow; early winter or fall.

White Winter Pearmain. Large, greenish-yellow; aromatic; good quality; midwinter.

Winesap. Large, roundish; deep red; winter.

Wealthy. Large, red, sub-acid; late fall.

Yellow Bellflower. Very large; golden yellow, tinged red on sunny side; very fine; early winter.

Yellow Newton Pippin. Large, roundish, rather flattened; golden yellow when ripe; best quality; good keeper.

Yellow Transparent. Medium, roundish, pale yellow; flesh tender; early summer.

APRICOTS.

On Apricot, Peach, or Myrobalan Root.

Barry. Tree very vigorous; fruit large and

early; the most promising new apricot we have seen.

Blenheim. Standard variety; our trees propagated from Payne's (Campbell) pedigreed orchard, all trees having originated from one selected tree.

Hemskirke. "Flickinger Strain"; recommended by Mr. Graham, president Flickinger Canning Company.

Moorpark. Unexcelled in size and quality, but often a shy bearer.

Montgamet. Handsomest table apricot.

Royal. Standard variety for canning, drying, or shipping; heavy bearer; tree hardy.

Smyrna. Rather late; good quality; kernels sweet.

Superb. An extra hardy variety, of fair size.

Tilton. Originated in Tulare County, and becoming recognized as one of the very best and a regular bearer; ripens just after Blenheim.

CHERRIES.

Advance. Very early; large, black; seedling of Early Purple Guigne.

Bing. Best late, black shipper; vigorous grower.

Belle d'Orleans. Mid-season; sour or pie cherry.

Belle Magnifique. Very late; handsomest and best of the sour cherries.

Bohemian Black Bigarreau. Very large and early.

Bedford Prolific. Similar to Black Tartarian; better bearer, harder tree.

Chapman. Seedling of Tartarian; earliest, very sweet, black, and enormous bearer.

Centennial. Enormous size; seedling of Royal Ann; more highly colored.

Dr. Flynn. New cherry, highly recommended, but not yet fruited with us.

Burbank's Early. Said to be earliest black cherry.

Early Purple Guigne. One of the earliest black cherries.

Early Richmond. Very early sour cherry.

Early Rivers. Large, black, very hardy, early and sweet; small stone.

Guigne Annonay. Large, rich, black cherry; ripens early.

Guigne de Winkler. Bright red, sweet; very late.

Lambert. Similar to Royal Ann, but later; an Oregon variety.

Lewelling (or Black Republican). Black, firm, good shipper and heavy bearer.

May Duke. Early; dark red; very good; heavy bearer.

Monstreuse de Mezel. Very large, black cherry; very valuable; rather late.

Noble. Large, dark red; very late.

Paul. Most valuable of all dark-colored shipping cherries.

Royal Ann. Well known as best canning cherry.

Schmidt's Bigarreau. Very large, black, firm; late.

Tartarian. Most popular large, black cherry; mid-season.

Windsor. Late; dull red; very good; great bearer.

Yellow Spanish. Light color; very popular table cherry; mid-season.

Our cherries are propagated mainly on Mahaleb root, making the tree much hardier and causing it to bear younger.

CHESTNUT.

Italian. The best chestnut for California. Thrives best in warm localities.

FIGS.

Adriatic. Standard white fig for drying; green skin; red flesh.

Black (or Mission). Most popular table fig for eating fresh.

Calimyrna. Commercial drying fig.

GRAPES.

On Own Roots.

Black Hamburg. Large berries; fine table grape.

Chasselas de Fontainbleau (or Sweetwater). Very early; white.

LEONARD COATES NURSERY CO., INC.

Cornichon. Black; late; berries long; requires pruning.
Dattier de Beyrouth. New; very large; for table, raisins or shipping.
Fehér Zagos. Early; white; very tender skin.
Flame Tokay. Very large; red; late.
Malaga. Large; white; mid-season.
Muscat. Raisin grape.
Palomino-blanco. White, tender, good quality.
Rose of Peru. Large, purple; mid-season; very popular.
Thompson Seedless. Early; white; large bunches; for table, shipping, or seedless raisins; needs long pruning.
Grafted on Rupestris, Phylloxera-Resisting Roots.
Almeria. Very late, white shipping grape.
Alicante. Black; late.
Bemista Bianca. New, not yet fruited.
Black Ferrara. Large, deep purple; rather late.
Black Hamburg. Large berries; fine table grape.
Chasselas de Fontainbleau. Very early; white.
Deacon's Superb. Large, golden.
Emperor. Very large, purple; late; good shipper.
Fehér Zagos. Early; white; very tender skin.
Flame Tokay. Very large; red; late.
Golden Queen. Large, golden; very good; mid-season.
Gros Colman. Very large, purple; late.

Diamond. White.
Eaton. Large, black.
Elvira. White.
Niagara. Greenish white; very productive.
Pierce. Very large, black; a California sport of Isabella, but much finer.
Salem. Large, light red.
Vergennes. Red.

LEMONS.

Eureka. Tree nearly thornless; good bearer.
Lisbon. Strong grower; fruit very acid; keeps well.
Villa Franca. Nearly thornless; very hardy; fruit nearly seedless.

LOQUAT.

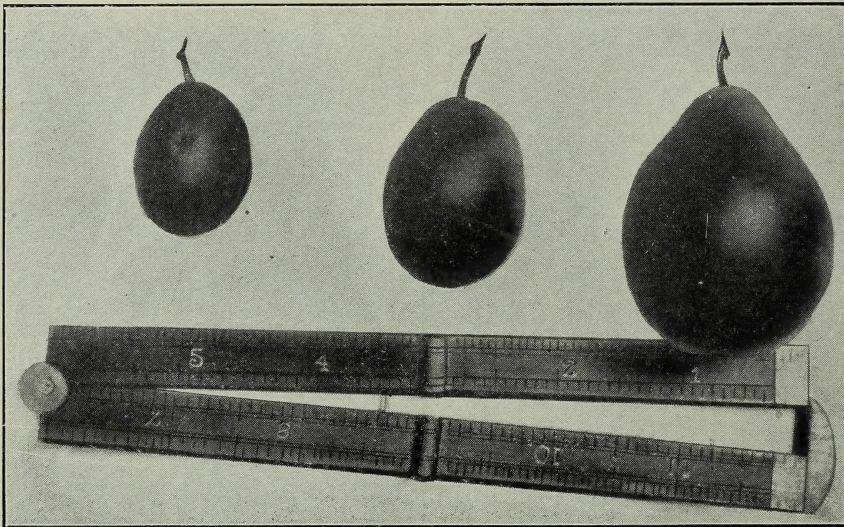
Seedlings; make larger tree than grafted varieties; fruit clear yellow, roundish, sweet. Forms very handsome, evergreen tree, with large, thick and glossy leaves.

MULBERRY.

Persian. Top-budded on wild stock; bears very large fruit all summer, of delightful flavor; leaves large and leathery. Birds leave other fruit for this.
Russian. Fruit inferior, but makes handsome shade tree.
White Mulberry. Handsome tree; fruit white; the variety used chiefly for the feeding of silk-worms.

NECTARINES.

Advance. Earliest to ripen.
Elruge. Large, red cheek, green flesh.
New White. Medium size, pale green skin, white flesh.
Stanwicke. Very large, red cheek, light flesh.



French Prunes. The Largest is the Pedigreed Type Called "Coates."

Malaga. Large, white; for table or shipping.
Mission. Medium, black; late; sweet; great bearer.
Muscat Hamburg. Black; muscat flavor; rather early.
Rose d'Italie. Red; delicate flavor; mid-season.
Rose of Peru. Large, purple; mid-season; very popular.
Sultanina rosea. Red, seedless grape; bunches very large; early.
Thompson Seedless. Early; white; large bunches.
White Cornichon. White; rather late; good quality.
Victoria. Fine table grape.
Zante Currant. Very small; black; makes dried "currants" of commerce.

AMERICAN GRAPES.

Suitable for Arbors.
Brighton. Black, early.
Delaware. Small, red; very sweet.

OLIVE.

Manzanillo. Fruit large, blue black; irregular in shape; free stone, and much esteemed for pickling.
Mission. Used for oil and pickling; ripens late, and therefore should not be planted in the Coast regions.

ORANGE.

Mediterranean Sweet. Tree spreading, thornless; fruit medium size; fine quality; late.
Valencia Late. Vigorous grower; fruit large, fine quality; ripens in early summer.
Washington Navel. Well-known seedless variety, commencing to ripen in November.
Satsuma. Mandarin type; small, sweet.
Kumquat. Very small and sweet.

These two are dwarf trees.

POMELO.

Marsh Seedless. Nearly seedless; most popular variety.

POMEGRANATE.

Ruby. Fruit large, aromatic, very handsome.
Sweet-fruited. Very large; ripens early.

LEONARD COATES NURSERY CO., INC.

PISTACHE,

Or Green Almond.

Pistacia vera. Seedlings; pistillate tree bears small nuts. Larger varieties sent out by Department of Agriculture being tested.

PERSIMMON.

Haycheya. Very large, conical; yellow.
Hyakume. Very large, roundish; orange.
Taninashi. Very large, conical; light red.

PEACHES.

Freestones.

On Peach and Apricot Roots.

Alexander. Very early; medium to large; greenish-white; good quality.
Acampo. Medium early; high color, yellow flesh; good quality.
Brigg's May. Medium size; juicy and sweet; a valuable early variety.
Conkling. An improvement on Early Crawford.
Chair's Choice. Late white freestone.
Decker. Excellent table or shipping peach; early; California origin.
Elberta. Very large; fine grain, juicy; good quality; unsurpassed for canning, drying or shipping.
Early Crawford. Large, yellow peach of good quality; good bearer.
Fitzgerald. Large, highly colored, very early yellow freestone.
Foster. Very large, yellow; resembles Early Crawford, but a few days earlier and of better quality.
Fay Elberta. Said to be improvement on Elberta.
Greensboro. Very large, greenish, pink apex; ripens after Hale's.
Hale's Early. Medium size and nearly round; skin greenish, mostly covered with red when ripe; flesh white, juicy, rich, sweet.
Heckel. The very latest really rich and good freestone we have tested; originated with Geo. Heckel, of Morganhill.
Late Crawford. Mid-season; better quality than Early Crawford.
Lady Palmerston. Large, greenish-yellow; very good, and a fine market variety; follows late Crawford in ripening.
Lovell. Large, almost perfectly round; firm; excellent quality; good canning and drying peach.
Muir. Good bearer; best drying peach.
Mayflower. Said to be the earliest ripening peach; red cheek.
Niagara. Very large, handsome, yellow freestone; quite early.
Peregrine. The handsomest and best early peach; intensely brilliant crimson, smooth skin; white flesh, firm; follows immediately after Hale's; introduced by us from England and offered for the first time in the United States.
Picquette's Late. Large; skin yellow with a red cheek; flesh yellow, sweet; ripens ahead of Salway.
Ray. Large; white flesh, pink cheek; early.
Strawberry. Medium size, oval; delicious flavor; white flesh.
Sneed. Very early peach of Alexander type, but a little earlier.
Seller's Free. Very large, yellow freestone; dries very heavy.
Salway. Large; most valuable late variety.
Triumph. Large; yellow skin and flesh; best early freestone.
Wilbur. Very large, extremely handsome, yellow freestone, ripening in September; not being identified, have called it "Wilbur" from the owner.
Wheatland. Very large; roundish; skin golden yellow; fine quality; very valuable for drying or market on account of its quality, size, and season of ripening; after Muir.

Clings.

Blood Cling. Medium; skin and flesh deep claret; very juicy.
Henrietta (or Levi's Late). A most magnificent yellow cling of largest size; skin mostly covered with bright crimson; hardy, productive, and ripens late.
McKevitt Cling. White cling.
Persian Cling. Late white cling.

Phillip's Cling. Large; yellow flesh; one of the best canning peaches.

Runyon's Cling. Orange cling; very large; skin yellow, with dark crimson cheek.
Seller's Cling. Very large, yellow cling.
Tuscan Cling. Large; yellow; fine shipper, early; one of the best for canning.
Winifred. Best very late yellow clingstone; equal to Henrietta, but much later.

PEARS.

On Pear Root.

Bartlett. Best pear for canning, shipping, or drying; large, melting; best quality.

On Quince Root.

On Quince root the trees should be set a little deeper, and not more than twelve feet apart; trees grow stocky, and bear very young, often the third year; fruit is very large and easily handled; the quince root thrives on heavy, moist land.

Bartlett.

Duchess. Very large; late summer; good for market or shipping.

Du Comice. Large; deep yellow, nearly covered with russety dots; fine shipper and keeper.

Glout Morceau. One of the best late shipping pears; of good quality.

Lawson. Medium; bright red cheek; early.

P. Barry. Large; deep yellow, nearly covered with russet; best late pear.

Winter Nellis. Medium; russet; very rich and sweet; keeps well.

PLUMS

On Myrobalan and Apricot Roots.

Autumn Compote. Oval, very large; red; late.

Admiral. Late; very large; purple; round.

Archduke. Very large; deep blue; late.

Burbank. Japanese; popular for shipping.

Bittern. Large; blue; mid-season.

Curlew. Large; deep blue; enormous bearer; early.

Clyman. Mottled red; very early; best.

Climax. Very large; early, and handsome; Japanese.

Denniston's Superb. Round; greenish-yellow; very delicious; earlier than Green Gage.

Diamond. Very large; blue; acid.

Denbigh. Very large, round; red; mid-season.

Early Favorite. Medium size; purple; very early.

Femmonzi. Californian; very large and handsome; is proving one of the very best shippers.

Green Gage. Round; sweet and rich.

Giant. Very large; red; good shipper; resembles Hungarian.

Golden Transparent. Very rich; beautiful golden color; mid-season.

Guthrie's Late. Roundish oval, large; pale yellow; late; best quality.

Grand Duke. Very large; deep blue; rich and firm.

Heron. Very large; purple; early.

Hungarian. Very large; red; good shipper.

Jefferson. Very large; rich golden yellow; greatly in demand as the best canning plum.

Kelsey. Very large; pale color, crimson cheek; good shipper; Japanese.

King of Damsons. Improved Damson.

Kirke. Roundish; purple; very rich; rather late.

Late Rivers. Rather small; almost black; best very late dark plum.

Maynard. Hybrid of Burbank's; good quality; Japanese.

Monarch. Very large, roundish-oval; purple; late; very promising as a leading shipper.

October Purple. Burbank's best; very late Japanese type.

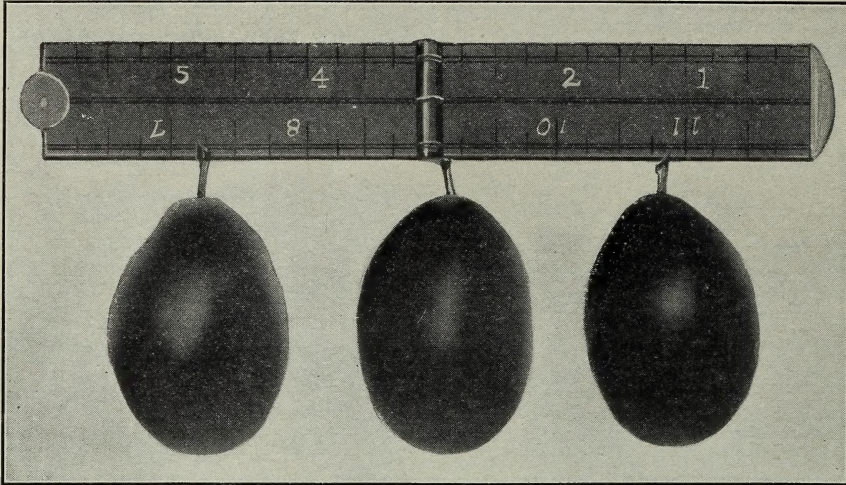
President. Very large, oval; deep purple; very late.

Peach. Very large, round; purplish; early.

Prunus Pissardi. Bearing a small, very early, red plum; leaves and flesh red.

Shipper's Pride. Originated in this country; good market plum.

Santa Rosa. One of Burbank's latest and best; Japanese.



The Type of French Prune Called "Morganhill," a California Seedling; Has Been Tested 10 Years

Shropshire Damson. Unsurpassed for jams.
Sultan. Deep red in color through to seed; much resembles Satsuma, but rather earlier; large, round; very fine for preserving; Japanese.
Satsuma. Blood plum; Japanese.
Splendor. Cross of Burbank's; very valuable as a market prune to ship fresh; very sweet; perfect freestone.
Tragedy. Oval; blue; very sweet; valuable as a shipper.
Uncle Ben. Californian; large; rich orange; very sweet; latest of all.
White Damson. Great novelty.
Wickson. Very large; enormous bearer; Japanese.
Yellow Egg. Very large; yellow.

PRUNES.

On Myrobalan, Almond, Apricot, and Peach Roots.

Clairac, Mammoth, or Imperial. A distinct strain of "Imperial," being a much better bearer; imported by the late Felix Gillet.
Coates. Large "pedigreed" type of French prune; matures early.
French Prune. Budded from good trees, but not as distinct as the former.
Morganhill. Large type of French Prune, of which it is a seedling. This and "Coates" are simply "Improved French Prunes."
Sugar. Burbank's introduction; very heavy bearer; valuable for shipping fresh, and is also used largely for drying.

QUINCE.

Pineapple. Very large; fruit cooks tender rapidly.
Rea's Mammoth. Very large tree; productive.
Smyrna. Enormous size; tree great bearer.

WALNUTS.

Grafted on California Black Walnut.

Concord. Variety introduced by us and which fulfils highest expectations. Has fruited nearly twenty years and never has blighted. Tree very vigorous, extremely heavy foliage and enormous bearer. Nut round, good quality; one of the very best market sorts.
Franquette. Tree upright grower and vigorous; nut rather long, of best quality; most largely planted of the French varieties during the last few years.
Mayette. Tree vigorous, spreading; nut large, round; of best market quality.
San Jose "Mayette," or "Wiltz." An improved Mayette, and which we consider the best walnut. Young trees bearing in our orchards. These four varieties are the best commercial walnuts for California.

WALNUT SEEDLINGS.

Ellwood. Strong grower; nut medium size, very good; reproduces very closely from seed.
Santa Barbara Soft-shell. The variety so much planted South, but which is being superseded by grafted sorts; fine grower, and bears well; nut good, but variable.

CALIFORNIA BLACK.

Planted for shade, or to be grafted in orchard.

Berries

BLACKBERRIES.

Himalaya. Recently imported. Strongest growing of all, and adapts itself to all conditions. May be trained on trellis, or over a building; continues to bear on laterals from older wood. Fruit large, very sweet, rather late, but has long season.
Mammoth. Largest berry; early; strong grower.
Lawton. Well known; mid-season.

CURRENTS.

Cherry. Most popular market red currant.
Comet. New; introduced by us from England; early, and very large bunches; best.
Black Currant. Esteemed for jellies.

GOOSEBERRIES.

Mayduke. Introduced by us from England; it has proved to be the earliest, largest and best mildew-proof gooseberry.
Portage. Carman. Two very large gooseberries of American origin.

LOGANBERRIES.

A cross between blackberry and raspberry. Strong grower; berry very large, red, acid.

RASPBERRIES.

Cuthbert. Very popular market berry.
Superlative. Recently introduced. Larger and firmer than Cuthbert.

STRAWBERRIES.

Lady Thompson. Early market variety.
Sharpless. Well-known market variety and good shipper.
 These are all pistillate varieties, and therefore good bearers. These varieties are about the best for California.

ASPARAGUS.

Conover's Colossal.

RHUBARB.

Australian Crimson Winter.
Linnaeus.

FRUIT TREE SEEDLINGS.

Almond.
Apricot.
Myrobalan Plum.
 Some growers prefer to plant these and bud or graft them afterwards in the orchard.

Ornamental Department

EVERGREEN TREES AND SHRUBS.

- ACACIA Armata.** Dark green foliage; very ornamental flowering shrub.
Baileyana. Feathery, blue-green foliage; profuse winter bloomer; strong grower.
Cultriformis (Knife-blade Acacia). Pale green flowering shrub; a beautiful contrast with *Armata*.
Cyanophylla (Blue-leaved Wattle). Leaves very large and glossy; flowers yellow.
Dealbata (Silver Wattle). Rapid growing tree; feathery foliage; blooms in winter; flowers golden yellow.
Decurrens (Green Wattle). Similar to *Dealbata*, but leaves darker, and flowers almost white, appearing in May.
Floribunda. Tree drooping; long, narrow leaves; profuse bloomer.
Latifolia. Of spreading, shrubby habit; flowers open in summer and continue for a long period.
Melanoxylon (Blackwood). Handsome, erect tree; for streets unsurpassed; very valuable for timber.

- CAMPHOR.** Handsome tree or shrub, requiring heat for rapid growth, but quite hardy; foliage very bright; the camphor tree of commerce.
CASUARINA equisetifolia (Beefwood or She Oak). From Australia. Long, needle-like leaves; very graceful, and can be trimmed into any shape.
Stricta. More erect habit; both are great drouth resisters, and are hardwood trees.
CEANOTHUS thyrsiflora (California Lilac). Blue-flowering shrub, growing in dry soils.
Spinosus. Flowers paler, and habit of growth stiffer.
CERASUS integrifolia (Catalina Cherry). Native evergreen cherry.
Illicifolia. Similar to above, but smaller, more holly-like leaves, and it grows wild further north, in the Coast Range.
CEDAR OF LEBANON (*Cedrus Libani*). Slow-growing, stately tree.
CERATONIA siliqua (Carob; St. John's Bread). Handsome tree, growing to great size, and bearing an edible bean.



Concord—Showing Dense Foliage

- Mollissima** (Black Wattle). Resembles *Dealbata*, but darker foliage; more largely planted than any other *Acacia*.
Podalyriaefolia. Recently introduced.
Primrosa. Recently introduced.
ARBOR VITAE. *Thuja occidentalis*. (White Cedar). Roundish in form, and suitable for massing or windbreaks.
ASPIDISTRA. Foliage pot plant; leaves very large and long.
BRACHYCHITON or *Sterculia acerifolia* (Flame Tree). Very handsome street tree, with scarlet flowers.
Diversifolia. Leaves glossy and bright, shape changing during the season.
Platanifolia. Similar to preceding, but leaves poplar shaped.
BROOM. Scotch. Drooping branches; bright yellow, pea-like flowers in spring.
CAMELLIA Japonica. Beautiful winter blooming shrubs; various colors.
CRATAEGUS pyracantha (Burning Bush). White flowers; red berries.
CRYPTOMERIA Japonica (Japanese Redwood). Magnificent tree, growing faster than the California Redwoods.
Elegans. Slower growing, and more drooping in habit.
CYPRESS, Monterey (*Cupressus Macrocarpa*). Well-known native tree, much used for massing, hedges, or windbreaks, but is handsomer as an individual specimen.
Lawsoniana. Rather drooping, and more graceful in habit.
Sempervirens (Italian Cypress). Tall, tapering, erect.
Guadalupensis (Blue Cypress).
DAPHNE. White and pink flowering; very fragrant; blooming in early spring.
EUCALYPTUS (Australian Gum Tree). Most valuable family of hardwood and orna-

mental trees. We have made a specialty of growing these trees and have large permanent plantations on our grounds, where over fifty species may be seen. We list only a few of those most desirable for ornament, for windbreaks, or commercial timber planting.

Amygdalina (Peppermint Gum). Tall growing, rather drooping; high percentage of oil; very hardy.

Amygdalina angustifolia. Variety of the foregoing, with very graceful, slender leaves; one of the most ornamental of the Eucalypts.

Angophora subvelutina (Turpentine Tree). Strong grower; ornamental.

Botryoides (Bastard Mahogany). Handsome tree; valuable for timber; thrives near the coast.

Citriodora. Lemon-scented.

Coccifera (Alpine). Very hardy; leaves stiff, roundish.

Corynocalyx (Sugar Gum). One of the most valuable as well as ornamental; rather tender.

Crebra (Narrow-leaved Iron-bark). Hardy, tall growing; small, narrow leaves; valuable hardwood tree.

Erythronema. New, ornamental; pale-bluish foliage.

Ficifolia (Scarlet-flowering). Most handsome flowering of the family; requires warm climate to induce rapid growth.

Globulus (Blue Gum). Best known of all, and very valuable for timber, as wind-break, or for fuel.

Gunnli (Cedar Gum). Very hardy.

Lehmanni. Ornamental; seed pods grow together, forming a large ball.

Melliodora (Honey-scented). Large, spreading tree; valuable timber.

Polyanthema. Very ornamental; pale, bluish-green foliage; very hardy, and about the best species for town ornamentation.

Regnans (Giant Gum). Said to grow 400 feet high.

Rostrata (Red Gum). Very hardy, and best hardwood tree for interior valleys.

Rudis (Desert Gum). Tall, but compact grower; hardy, and one of the most useful.

Saligna. Hardy, upright grower; valuable for timber.

Sideroxylon (Red Iron-bark). Moderate grower; hardy; valuable timber.

Sideroxylon-rosea. Pink-flowering; graceful foliage; ornamental.

Stuartiana (Apple-scented). Very hardy; strong, upright grower.

Tereticornis (Gray Green, Forest Red Gum). Similar to *Rostrata*, but broader leaves.

Viminalis (Manna Gum). Very handsome, tall growing tree, with drooping branches.

EUONYMUS Japonica. Ornamental shrub, dark green, glossy foliage.

Silver Variegated. Leaves with white edges.

Golden Variegated. Leaves dark green with yellow markings.

GREVILLEA robusta (Silk Oak). Erect, handsome tree; fern-like foliage; orange-scarlet flowers.

GUAVA. Strawberry; fruit much esteemed for jellies.

HIBISCUS. Tender shrubs, with immense, single flowers, of various colors.

HONEYSUCKLE. Evergreen.

HYDRANGEA. Well-known shrubs, requiring shade and plenty of water.

LIBROCEDRUS decurrens (Incense Cedar). Handsome Cedar; native of Sierra Nevada Mountains.

MARGUERITE. White, yellow, or blue flowers.

MAGNOLIA grandiflora. Grand tree; native of Southern States; leaves very glossy; immense, pure white, fragrant flowers.

MYRTLE. Handsome shrub, with small, aromatic leaves; flowers white.

OLEANDER. Handsome flowering shrubs; flowers of various colors; succeed best in abundant sunshine.

PALMS. **Phoenix canariensis** (Ornamental Date Palm). Succeeds almost anywhere if given plenty of room.

Washingtonia filifera robusta (California Fan Palm).

PEPPER. **Schinus Molle**. Great favorite all over California. Beautiful pinnate leaves; branches drooping; forms round head; flowers followed by very ornamental drooping clusters of red berries.



San Jose Mayette or Wiltz.

- PHOTINIA arbutifolia** (Christmas Berry, Toyon). Handsome shrub, bearing the well-known scarlet "Christmas Berries."
- PINE, Austrian.** Of robust, spreading habit, Coulteri (Pitch Pine). Native of California; very large cones.
- Pinea** (Italian Stone Pine). Very stately, rather spreading pine.
- Sabiana** (Digger Pine). Californian; cones large; seeds edible.
- Insignis** (Monterey Pine). Well known, and most rapid growing native variety.
- Fremontiana.** Native of California.
- POINCIANA gillespii** ("Bird of Paradise"). Leguminous shrub or small tree, with handsome flowers; the long, crimson antlers giving it the name, "Bird of Paradise."
- PRIVET ligustrum.** Bright foliage; sweet-scented, white flowers; very popular as a hedge plant.
- Ligustrum Japonica.** Golden variegated.
- PISTACIA chinensis.** Ornamental tree from China, recently introduced through the Department of Agriculture.
- PLUMBAGO capensis.** Shrub of climbing habit, with bright blue or white flowers.
- PITTOSPORUM eugenoides.** Highly ornamental shrub, succeeding in dry locations; bright, light green foliage.
- Nigricans.** Smaller foliage than preceding; stems dark purple.
- Undulatum.** Bearing fragrant blossoms; leaves deep green.
- PHORMIUM tenax** (New Zealand Flax). Handsome sword-like leaves, yielding valuable fiber; much used as decorative pot plant.
- POLYGALA.** Free blooming shrub; flowers crimson, pea-shaped.
- REDWOOD.** *Sequoia sempervirens.* Coast Redwood.
- "Big Tree"** (*Sequoia gigantea*). Sierra Nevada Redwood.
- ROMNEYA Coulteri** (Matilija Poppy, California Tree Poppy). Semi-herbaceous shrub, growing to great size; requires plenty of room and an open, sunny situation, in well-drained soil. Flowers pure white, 6 to 7 inches in diameter, with tassel-like cluster of yellow stamens, borne on long, branching stems. Blooming period lasts from May to September. Native of California, and rightly called "Queen of Flowers."
- SPRUCE, Norway** (*Picea excelsa*). Compact, symmetrical tree.
- SHAMROCK, True Irish.**

DECIDUOUS TREES.

- ALMOND.** Flowering; pink and white.
- ASH, Mountain, European** (*Fraxinus ornus*). White flowers, succeeded by scarlet berries.
- New Mexico and Arizona** (*F. velutina*). Withstands drouth.
- BALD CYPRESS** (*Taxodium distichum*). Graceful, feathery foliage; native of Southern States.
- BROUSSONETTIA papyrifera** (Paper Mulberry). Handsome tree, giving dense shade.
- CATALPA speciosa.** Beautiful shade tree, with immense leaves; flowers fragrant, purple and white; also valuable for timber.
- Kaempferi.** Japanese; foliage glossy.
- Bungei.** Top-budded on *Speciosa*. Forms a most unique and beautiful ornamental tree with round, compact head, and highly recommended for street work or for avenues in private grounds.
- CHESTNUT, Italian.** Most desirable street tree.
- CEDRELA chinensis.** From North China; feathery foliage, resembling *Ailanthus*, but without the disagreeable odor; flowers in long, pendant racemes.
- CHERRY, Flowering.**
- CRAB, Flowering.**
- ELM, Cork Bark.** Desirable street and avenue tree.
- American White.** Large tree, with rather drooping branches.
- KOELREUTERIA paniculata** (Varnish Tree). Shiny foliage; panicle of golden flowers.

- LINDEN, American** (*Tilia Americana*). Large, handsome foliage; "Basswood."
- European.** Smaller foliage.
- LOCUST** (*Robinia pseudacacia* (Black Locust). Rapid growing, in driest locations; valuable for timber, posts, etc.
- R. decaisneana.** Pink flowering.
- R. semperflorens.** Flowers tinged pink; blooms all summer.
- R. viscosa.** Deep pink flowers.
- R. hispida** ("Rose Acacia"). Top-budded on common locust; it forms a most beautiful tree, with its large, deep rose-colored blossoms.
- MAIDENHAIR TREE, or Ginko** *Salisburia*. Foliage fern-like.
- MAPLE, English** (*Acer campestre*). Compact growth; does well in California.
- Silver, or Soft** (*Dasycarpum*). Strong grower.
- Scarlet.** Rapid grower.
- Sugar.** Moderate grower.
- MULBERRY, Russian.** Very fine shade tree.
- White.** Very fine shade tree.
- PLANE** (*Platanus orientalis*). Very desirable street tree; fine, clean foliage.
- PAGODA TREE** (*Sophora Japonica*). Beautiful tree, with dark green leaves, finely cut; flowers creamy yellow.
- PEACH.** Flowering; pink and white.
- PHILLODENDRON amurense** (Chinese Cork Tree). Rare and handsome tree, with beautiful pinnate leaves and corky bark.
- PISTACHE.** Very handsome shade tree.
- QUINCE, Flowering.**
- TEXAS UMBRELLA.** Compact, round, spreading head. Succeeds best in warm climate.
- TULIP POPLAR** (*Liriodendron*). Glossy, fiddle-shaped leaves; yellow, tulip-like flowers.
- WALNUT, California Black.**
- Eastern Black.**
- WEeping WILLow.**

DECIDUOUS FLOWERING SHRUBS

- ALTHEA** (Rose of Sharon). Bearing large, bell-shaped flowers late in the summer; colors from white to dark purple. We have five varieties.
- Beule de feu.** Double pink.
- Albus.** White, single.
- Bicolor.** Single white, tinted red.
- Ardenus.** Purple.
- Alba plena.** White, double.
- BARBERRY** (*Berberis thunbergii*). Foliage turning to coppery red in autumn.
- CREPE MYRTLE.** Pink and white flowering. Beautiful shrubs; from China.
- DEUTZIA.** Profuse-flowering Japanese shrubs.
- Lemoine.** White.
- Candidissima.** Double white.
- Candidissima plena.** Single white.
- Crenata-rosea.** Pink.
- Pride of Rochester.** White, tinged pink.
- DOGWOOD** (*Cornus Florida*). Flowering Dogwood.
- Siberian.** Flowers creamy.
- ELDER** (*Sambucus racemosus*).
- Sambucus aurea.** Golden leaved.
- FRINGE TREE** (*Rhus cotinus*) (Smoke Tree). Flowers borne in purple, plumy masses.
- HAWTHORNE** (*Crataegus oxycantha*). White flowers.
- C. coccinea.** Red.
- HYDRANGEA.** Bearing large clusters of pink or white flowers.
- HONEYSUCKLE** (*Lonicera grandea-rosea*). Bush; red.
- Lonicera Tartarica alba.** White bush.
- LILAC** (*Syringa vulgaris*). Purple.
- S. vulgaris alba.** White.
- S. persica.** Purple.
- S. persica alba.** White.
- MOCK ORANGE** (*Philadelphus Lemoine*).
- SPIRAEA** (Anthony Waterer). Flowers crimson.
- Van Houttii.** Similar to Bridal Wreath.
- Thunbergii.** Small, white flowers.
- Douglasi.** Flowers pink.
- Callosa-alba.** White; flowers all summer.
- STEPHANANDRA fluuosa.** Graceful shrub, resembling the *Spiraea*.



Cluster of "Coates" French Prunes

SYMPHOCARPUS vulgaris. Wax berry; red.

Racemosus. White wax berry.

SNOWBALL (*Viburnum tomentosum*).

V. lantana. Flowers smaller.

TAMARISK (*Tamarix Gallica*). Flowers pink.

T. odesana. Of stronger growth; very ornamental.

WEIGELA, Eva Rathke. Trumpet-shaped crimson flowers; small shrub.

Candida. White flowers; very desirable shrubs.

CLIMBING PLANTS

AKEBIA quinata. Flowers "old rose" color; foliage bright; recommended for covering fence or tree stumps in an artistic manner.

AMPELOPSIS quinquefolia (*Virginia Creeper*).

Veitchii ("Boston Ivy"). Leaves small; suitable for covering buildings.

Engelmanni. Clings more to walls.

Muralis. Climbs well over buildings without support.

AUSTRALIAN PEA. Crimson, pea-shaped flowers; covers building rapidly.

BIGNONIA grandiflora. Very large, red, trumpet-shaped flowers.

Sanguinea. Flowers not quite so large, but more vivid red.

BRIDGESIA spicata. New; glossy, green foliage; pink flowers, followed by scarlet berries.

CLEMATIS Jackmanni. Flowers purple.

Henryi. Almost white.

Ville de Lyon. Red.

Mme. Baron Veillard. Lavender-pink.

These are four of the finest imported Clematis.

HONEYSUCKLE, Woodbine. Flowers fragrant.

MUEHLENBECKIA complexa (*Tasmanian Ivy*). Small, wiry stems and foliage.

SMILAX. Used largely for indoor decorative purposes.

WISTERIA. White or purple.

ROSES.

Large, field-grown bushes; all on their own roots, thus avoiding the annoyance of suckers from the wild rose.

American Beauty. Rich red; fragrant.

Anne de Diesbach. Shell pink; fragrant.

Baron de Bonstettin. Very dark velvety red.

Banksia. White; strong climber; evergreen.

Bride. White.

Caroline Testout. Pink.

Caroline Goodrich. Light red.

Capt. Christy. Delicate flesh pink.

Clio. Rosy pink.

Christine de Noué. Tinted, reddish.

Crimson Globe. Rich crimson.

Crimson Rambler. Strong climber.

Crimson Baby Rambler. Dwarf; blooms all summer.

Climbing Devoniensis. Creamy white, yellow center.

Devoniensis. Same, but not climbing.

Dorothy Perkins. Shell-pink; strong climber.

Duchess of Albany. Rose color.

Fisher Holmes. Scarlet, shaded crimson.

F. Kruger. Yellow, shaded pink.

Frau Karl Druschki. White; very fine.

Gen. Jacqueminot. Bright red.

Gruss an Teplitz. Vivid crimson; fragrant.

Gardenia. Creamy white; trailing.

Helen Gould. Rosy crimson.

Ivory. Pure white; long, pointed buds.

Jubilee. Maroon.

Kaiserin Aug. Victoria. Pure white.

Lamarque. White; strong climber.

La France. Pink.

Meteor. Velvety crimson.

Marie Washington. White; flowers in clusters.

Maman Cochet. Rosy-pink.

Mad. A. Vetry. Crimson-scarlet.

Mad. de Watteville. Salmon-white, bordered rose.

Mrs. J. Laing. Bright pink.

Mousseline. White moss.

Prince C. de Rohan. Very deep velvety crimson.

Paul Neyron. Very large, pink.

Papa Gontier. Dark crimson.

Queen Scarlet. Clear, velvety scarlet.

Rainbow. Coral pink, striped crimson.

Safrano. Apricot yellow.

Souv. de Pierre Notting. Creamy white, shaded pink.

Souv. de Pres. Carnot. Flush white, shaded fawn.

Wm. Allen Richardson. Deep orange-yellow; climber.

White La France. White, shaded pink.

White Maman Cochet. White, slightly shaded pink.

Wichuriana. Memorial rose. White, trailing.

Yellow Maman Cochet. Sulphur-yellow.

POT ROSES.

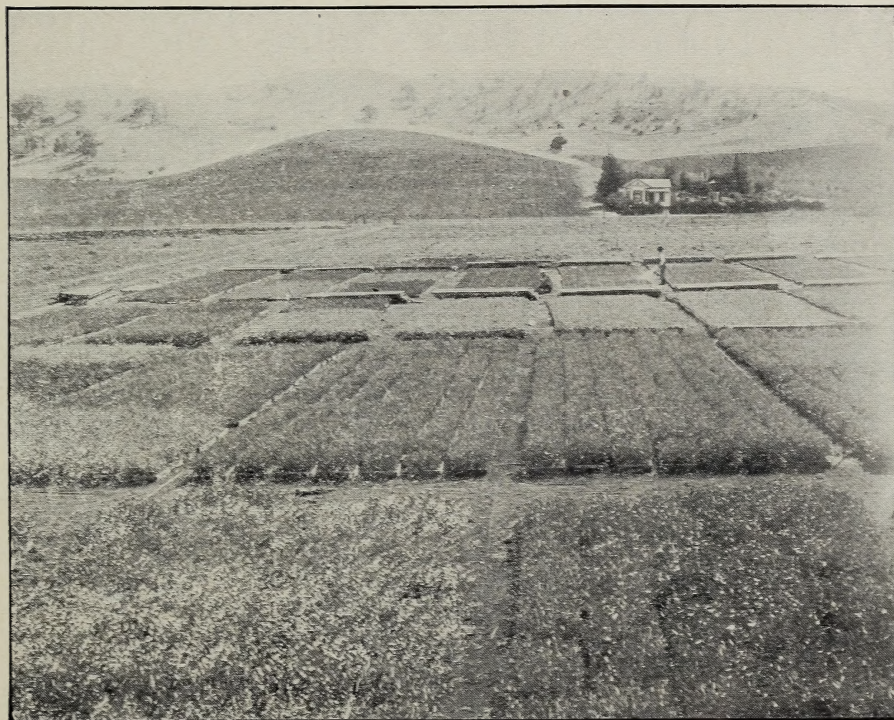
Of these we make a specialty; can be handled and planted at any time of the year without injury.

American Beauty. Rich red.
Antoine Revoire. Creamy-white, tinted pink.
Aennchen Mueller. Dwarf; pink; constant bloomer.
Baron de Bonstettin. Deep, velvety crimson.
Beauty of Glazenwood. Creamy yellow, shaded orange; climber.
Caroline Goodrich. Light red.
Clotilde Soupert. Dwarf; white, shading to pink.
Christine de Noe. Tinted, reddish.
Crimson Baby Rambler. Dwarf; constant bloomer.
Cherokee. Single white; strong climber.
Cherokee. Double white; very strong climber; evergreen.
Cherokee. Single pink; great novelty; nothing more gorgeous.
Devoniensis. Creamy white, tinted yellow.
Dorothy Perkins. Shell-pink; strong climber.
Duchess of Albany. Rose color.
Flower of Fairfield. Ever-blooming crimson Rambler.
Gardenia. Creamy white; trailing.
Gruss an Teplitz. Vivid crimson; fragrant.

Helen Cambier.
Ivory. Pure white.
Killarney. Pink.
Karl Frau Druschki. White.
La France. Pink.
Mad. de Watteville. Salmon-white.
Mad. de Vetry. Crimson-scarlet.
Mad. de Chatenay. Rose-pink.
Mosella. Chrome-yellow center; dwarf.
Mousseline. White moss.
Pink Rambler. Strong climber.
Pink Baby Rambler. Dwarf; constant bloomer.
Reine Marie Henriette. Crimson climber.
Souv. de Pierre Notting. Creamy white, tinted pink.
Tausendschon (Thousand Beauties). Climber; flowers in clusters, and of many shades.
True Friend. Pink; strong climber; flowers resemble Cecile Brunner.
White Baby Rambler. Strong climber.
White Banksia. Strong, evergreen climber.
White Maman Cochet. White, pink flush.
Veilchenblau ("Blue Rose"). Violet-purple color.
Yellow Banksia. Strong, evergreen climber.
 Dwarf Roses and Baby Ramblers should be planted in groups, or for hedges, or may be kept in pots for some months.

LAWN GRASS.

Lippia repens. A fine substitute; requires less water.



Well Hardened Eucalypts Ready for Planting

A Few Testimonials

All of 1911.

From Sunnyvale: "Trees are all doing finely, with the exception of one Apricot; we are highly pleased."

From Byron: "I am well pleased with them—Concord and San Jose Mayette Walnut trees."

From Bostonia: "If I should plant another year, I should certainly send for your catalogue with a view to ordering."

From Ukiah: "Trees you sent me are making a fine growth, and I got the smallest trees you had."

From Kenwood: "The trees you sent me were so good that somebody stole three while they were heeled in."

From Bakersfield: "Your stock is the best I ever received or saw, during an experience of a quarter of a century as a tree planter."

Specialties for 1911-12

DWARF PEARS. Pears on quince root in heavy, moist land bring more net returns to the acre than on pear root.

PEREGRINE PEACH. Imported from England, and fruited two seasons in our experimental orchards.

WILBUR PEACH. First-class yellow free-stone, ripening just when such fruit is scarce.

PERSIAN MULBERRY. Top-budded on wild stock; very different fruit from the ordinary insipid mulberries.

PIERCE GRAPE. Not new, but overlooked, and not planted as it should have been.

ROBINEA HISPIDA. Rose Acacia, top worked on common locust; large, crimson, pea-shaped flowers.

POT ROSES. Grand assortment; can be transplanted any day in the year.

SINGLE PINK CHEROKEE ROSE. Hybridized with a Tea and first called "Anemone Rose."

CHRISTMAS BERRY (Toyon). Fine plants. REDWOOD (*Sequoia Sempervirens*).

ROMNEYA COULTERI (Matilija Poppy). California Tree Poppy. "Queen of Flowers."

And SEEDS grown by us of SWEET PEA Thos. Stevenson, Maud Holmes, Kelway's

Black, "THE THREE INCOMPARABLE REDS."

Kelway's Black was raised by Kelway & Sons, Langport, England, and is a decided improvement on Black Prince and Black Knight; it is, in fact, the best of the "Blacks." We have a fine stock of well-matured seed, carefully rogued for two seasons, and ours is the only stock in the United States.

Maud Holmes, raised by the well-known Sweet Pea expert, Robert Holmes, F. R. H. S., of Tuckswood Farm, Norwich, England, stands at the head of the bright, sun-proof crimsons.

Thomas Stevenson, which is a pure Spencer type of orange-scarlet, and an improvement on St. George, which created quite a sensation, in the same article, is described as "one of the best of the true orange or orange-scarlet section, and if it maintains its purity and immunity from scalding, as it did last season, it is bound to become popular. It is a good grower and the size and form of the flower are all that could be wished."

We should be glad to furnish a copy of opinions expressed on these Sweet Peas by a number of the most noted experts in Great Britain.

Number of Plants to the Acre

At Given Distances Apart

4x 4	feet apart.....	2722
5x 5	" ".....	1742
6x 6	" ".....	1210
7x 7	" ".....	807
8x 8	" ".....	680
10x10	" ".....	435
20x20	" ".....	109
22x22	" ".....	90
24x24	" ".....	75
25x25	" ".....	69
30x30	" ".....	48
35x35	" ".....	35
40x40	" ".....	27
50x50	" ".....	17
60x60	" ".....	12

Rule.—To find the number of plants required for one acre when the square method is followed, multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant, which, divided into the number of feet in an acre (43,560), will give the number of trees to the acre.

Orchard trees have often been planted too close. On rich land, no fruit trees should be closer than 24 feet apart, and for trees of spreading habit, like apricots or apples, even more room is desirable. Walnuts require not less than 40 feet each way. Blackberries, Raspberries, Currants and Gooseberries are usually set in rows 6 feet apart and 4 to 5 feet apart in the rows.

Eucalyptus trees for a permanent forest should be planted either 6x6 feet apart, and occasional rows omitted for avenues, or 8x8 feet if the soil is rich and a quick-growing variety is selected. Some varieties, like Globulus, root nearer the surface, and others, like Rostrata, root much deeper, often making 40 per cent more root than top the first few years.

When trees are received from the nursery, the bundles should be opened, roots spread carefully in a trench, and covered well with

fine soil, firmly pressed down. The trees should be left on a ridge, however, so that water will drain away from the roots after heavy rains. If trees are thus treated, and are taken out and kept shaded as wanted while planting is progressing, all will start to grow vigorously. Broken or bruised roots should be cut off, and the trees pruned back to about 2 feet from the ground.

Trees should be planted about as deep or a little deeper than they stood in the nursery. The hole should be dug not less than 2 feet deep by 1½ feet in diameter; the bottom being left convex, with earth well loosened. Spread the roots naturally, and fill in with fine soil, pressed firmly around. Then keep the surface constantly loose by hoeing with a two-pronged vineyard hoe, and by continuous and deep cultivating. The trunk must be kept shaded, either with strips of burlap or with some other protector.

It is of the utmost importance that trees grown on a root suitable to the soil should be used, and it is better to vary the planting on a given tract of land rather than to plant large blocks of one variety irrespective of the varying nature of the soil.

Another point often overlooked is the cross pollination of varieties. Some varieties are strongly self-fertile, and others weak. It becomes often necessary to thus mix the varieties to insure regular or heavy bearing. Our long orchard experience enables us to give advice in this and the many other details of commercial orcharding.

We endeavor especially to make a satisfactory selection of fruits for the family orchard, and which will give the very longest season in which ripe fruit may be picked.

We invite intending planters to visit our experimental grounds, orchards, and nurseries. Assistance will be given in the selection of trees, plants, or shrubs for the smallest lot as cheerfully as for laying out of extensive grounds.



